



HP Slate 7 VoiceTab Ultra Tablet

Maintenance and Service Guide

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First Edition: May 2014

Document Part Number: 768328-001

Product notice

This guide describes features that are common to most models. Some features may not be available on your tablet.

Not all features are available in all editions of Windows 8. This tablet may require upgraded and/or separately purchased hardware, drivers, and/or software to take full advantage of Windows 8 functionality. See for <http://www.microsoft.com> details.

Software terms

By installing, copying, downloading, or otherwise using any software product preinstalled on this tablet, you agree to be bound by the terms of the HP End User License Agreement (EULA). If you do not accept these license terms, your sole remedy is to return the entire unused product (hardware and software) within 14 days for a refund subject to the refund policy of your place of purchase.

For any further information or to request a full refund of the tablet, please contact your local point of sale (the seller).

Safety warning notice

 **WARNING!** To reduce the possibility of heat-related injuries or of overheating the device, do not place the device directly on your lap or obstruct the device air vents. Use the device only on a hard, flat surface. Do not allow another hard surface, such as an adjoining optional printer, or a soft surface, such as pillows or rugs or clothing, to block airflow. Also, do not allow the AC adapter to contact the skin or a soft surface, such as pillows or rugs or clothing, during operation. The device and the AC adapter comply with the user-accessible surface temperature limits defined by the International Standard for Safety of Information Technology Equipment (IEC 60950).

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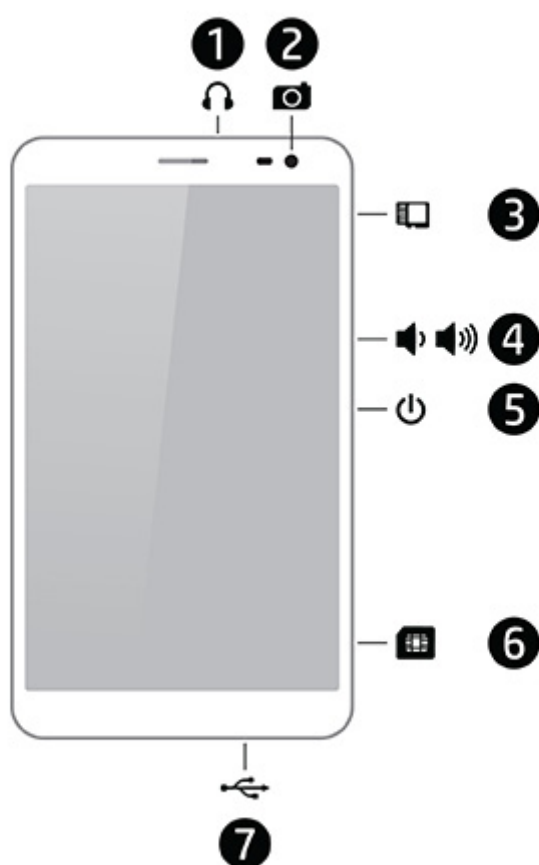
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1 Product description

Category	Description
Product Name	HP Slate 7 VoiceTab Ultra Tablet
Chipset/processor	Balong® V9R1 Cortex-A9 quad core 1.60-GHz processor
Graphics	Integrated with soldered-on-circuit (SoC)
Panel	7.0-in, diagonal capacitive, 10-point MultiTouch, Low Temperature PolySilicon (LTPS), full high-definition (FHD), wide viewing angle (1920×1200), display assembly
Memory	Supports 2 GB LP DDR3 800-MHz system memory, integrated onto system board
Storage	Supports 16 GB eMMC storage, integrated onto system board Supports external Micro SD up to 32 GB
Audio and video	5-MP, fixed-focus front-facing webcam 13-MP, autofocus rear-facing webcam Dual microphones (2) 1-W speaker supporting DTS Sound Receiver
Sensors	• Axis sensor: 9-axis (accelerometer, e-compass, gyro) • Light sensor: ambient light sensor • GPS sensor: AGPS/GPS/Glonass • Proximity sensor • Hall sensor
Wireless	• 501L ◦ GSM band 2/3/5/8 ◦ UMTS band 1/2/5/8 ◦ FDD-LTE band 1/3/7/20 ◦ TDD-LTE band 40 • Wifi: 802.11 a/b/g/n • Bluetooth: 4.0+LE

Category	Description
Ports	• Micro USB type B with MHL and OTG support • Micro SD slot • Micro SIM slot • Audio jack: 3.5-mm with microphone and URAT support
Power requirements	Supports a 1-cell, 5000-mAh lithium-polymer, USB-charging battery Supports a 5V-2A, 10-W USB cable AC adapter
Operating system	Preinstalled: Android 4.2
Serviceability	End user replaceable parts: • AC adapter • USB cable • Wired headset

2 External component identification



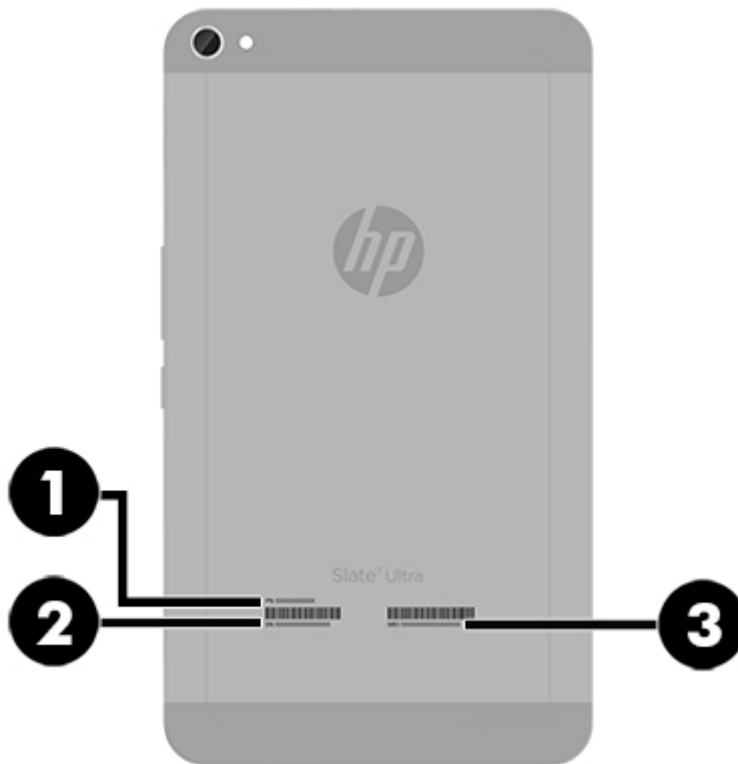
Item	Component	Item	Component
(1)	Audio-out (headphone)/Audio-in (microphone) jack	(5)	Power button
(2)	Front-facing webcam	(6)	Micro SIM slot

Item	Component	Item	Component
(3)	Micro SD Card Reader slot	(7)	Micro USB 2.0 port
(4)	Volume control button		

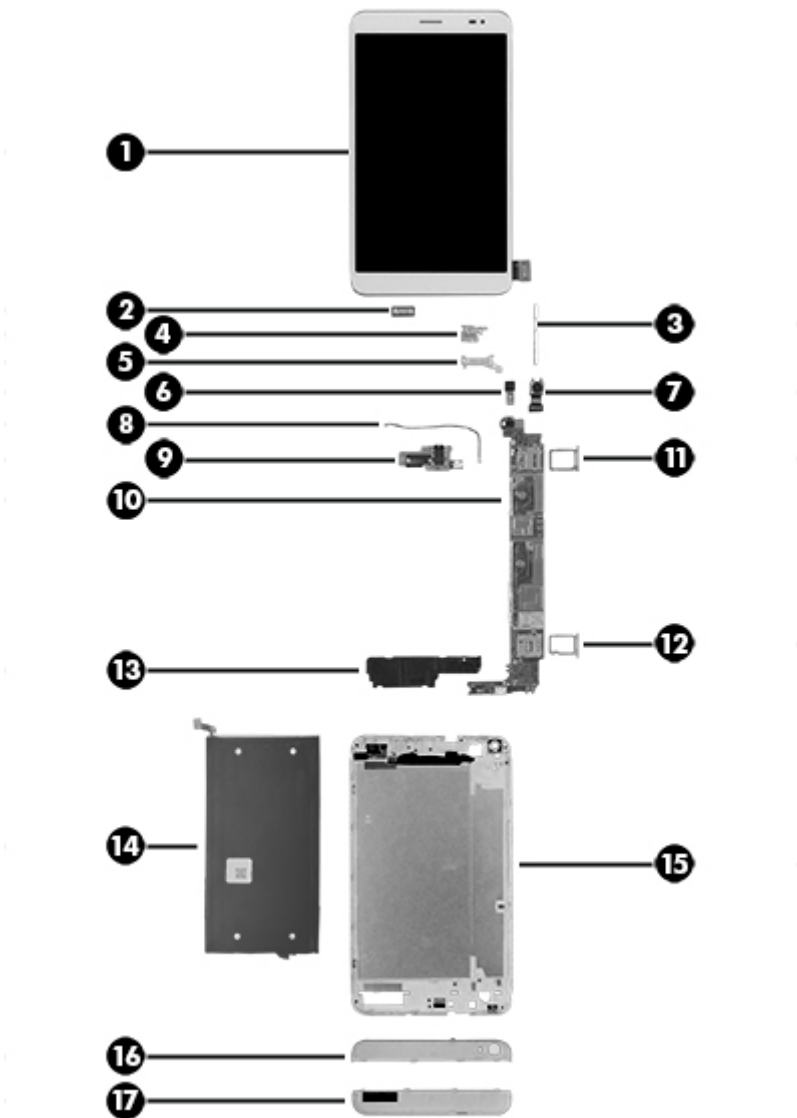
3 Illustrated parts catalog

Locating the tablet part number, serial number, and IMEI number

The tablet part number **(1)**, serial number **(2)**, and IMEI number **(3)** are located on the back cover. This information is needed when travelling internationally or contacting customer support.



Tablet major components



Item	Component	Spare part number
(1)	Display panel assembly (7.0-in, FHD, LED, TouchScreen, includes front cover)	767957-001
(2)	Receiver (includes double-sided adhesive)	767964-001
(3)	Power/volume button actuator: Included in the back cover spare part kit, spare part number 767953-001.	
(4)	Battery cable bracket	776000-001
(5)	Webcam cable bracket	775999-001
(6)	5-MP front-facing webcam (includes cable and double-sided adhesive)	767960-001
(7)	13-MP rear-facing webcam (includes cable)	767961-001

Item	Component	Spare part number
(8)	RF cable	776002-001
(9)	I/O board (includes audio jack and cable)	767956-001
(10)	System board equipped with a Balong V9R1 Cortex-A9 quad core 1.60-GHz processor, 2.0-GB of system memory, 16-GB eMMC system storage, and a graphics subsystem with UMA memory	767959-001
(11)	SD Card holder	775997-001
(12)	SIM holder	775998-001
(13)	Speaker	767958-001
(14)	Battery , 1-cell, 5000-mAh, Li-ion, USB-charging (includes cable)	767954-001
(15)	Back cover with battery (1-cell, 5000-mAh, Li-ion, USB-charging, includes cable and power/volume board actuator)	767953-001
(16)	Top cover	767962-001
(17)	Bottom cover	767963-001

Miscellaneous parts

Component	Spare part number
10-W AC adapter:	
For use only in Europe and South Korea	773125-009
For use only in India	773125-005
For use only in Asia Pacific countries and regions, Japan, and North America	773125-008
For use only in South Africa	773125-007
For use only in the United Kingdom and Singapore	773125-003
Cable key	776001-001
Cover Hardware Kit	778550-001
Earphone	777776-001
HP Slate 7 VoiceTab Ultra Tablet:	
HP Slate 7 VoiceTab Ultra Tablet for use in all countries and regions except Europe, the Middle East, and Africa (equipped with a Balong V9R1 Cortex-A9 quad core 1.60-GHz processor, 7.0-in, FHD, LED, TouchScreen, display panel assembly, 2.0-GB of system memory, 16-GB eMMC system storage, and a graphics subsystem with UMA memory)	767955-001
HP Slate 7 VoiceTab Ultra Tablet for use only in Europe, the Middle East, and Africa (equipped with a Balong V9R1 Cortex-A9 quad core 1.60-GHz processor, 7.0-in, FHD, LED, TouchScreen, display panel assembly, 2.0-GB of system memory, 16-GB eMMC system storage, and a graphics subsystem with UMA memory)	767955-021
Screw Kit	778241-001

Component	Spare part number
USB extension cable	767952-001
USB dongle	780960-001

Sequential part number listing

Spare part number	Description
767952-001	USB extension cable
767953-001	Back cover with battery (1-cell, 5000-mAh, Li-ion, USB-charging, includes cable and power/volume board actuator)
767954-001	Battery, 1-cell, 5000-mAh, Li-ion, USB-charging (includes cable)
767955-001	HP Slate 7 VoiceTab Ultra Tablet for use in all countries and regions except Europe, the Middle East, and Africa (equipped with a Balong V9R1 Cortex-A9 quad core 1.60-GHz processor, 7.0-in, FHD, LED, TouchScreen, display panel assembly, 2.0-GB of system memory, 16-GB eMMC system storage, and a graphics subsystem with UMA memory)
767955-021	HP Slate 7 VoiceTab Ultra Tablet for use only in Europe, the Middle East, and Africa (equipped with a Balong V9R1 Cortex-A9 quad core 1.60-GHz processor, 7.0-in, FHD, LED, TouchScreen, display panel assembly, 2.0-GB of system memory, 16-GB eMMC system storage, and a graphics subsystem with UMA memory)
767956-001	I/O board (includes audio jack and cable)
767957-001	7.0-in, FHD, LED, TouchScreen, display panel assembly (includes front cover)
767958-001	Speaker
767959-001	System board equipped with a Balong V9R1 Cortex-A9 quad core 1.60-GHz processor, 2.0-GB of system memory, 16-GB eMMC system storage, and a graphics subsystem with UMA memory
767960-001	5-MP front-facing webcam (includes cable and double-sided adhesive)
767961-001	13-MP rear-facing webcam (includes cable)
767962-001	Top cover
767963-001	Bottom cover
767964-001	Receiver (includes double-sided adhesive)
773125-003	10-W AC adapter for use only in the United Kingdom and Singapore (includes plug)
773125-005	10-W AC adapter for use only in India (includes plug)
773125-007	10-W AC adapter for use only in South Africa (includes plug)
773125-008	10-W AC adapter for use only in Asia Pacific countries and regions, Japan, and North America (includes plug)
773125-009	10-W AC adapter for use only in Europe and South Korea (includes plug)
775997-001	SD Card holder
775998-001	SIM holder

Spare part number	Description
775999-001	Webcam cable bracket
776000-001	Battery cable bracket
776001-001	Cable key
776002-001	RF cable
777776-001	Earphone
778241-001	Screw Kit
778550-001	Cover Hardware Kit
780960-001	USB dongle

4 Removal and replacement preliminary requirements

Tools required

You will need the following tools to complete the removal and replacement procedures:

- Flat-bladed screw driver
- Magnetic screw driver
- Phillips P0 screw driver
- Phillips P00 screw driver

Service considerations

The following sections include some of the considerations that must be kept in mind during disassembly and assembly procedures.

 **NOTE:** As each subassembly is removed from the tablet, place the subassembly (and all accompanying screws) away from the work area to prevent damage.

Plastic parts

 **CAUTION:** Using excessive force during disassembly and reassembly can damage plastic parts. Use care when handling the plastic parts. Apply pressure only at the points designated in the maintenance instructions.

Cables and connectors

 **CAUTION:** When servicing the tablet, be sure that cables are placed in their proper locations during the reassembly process. Improper cable placement can damage the tablet.

Cables must be handled with extreme care to avoid damage. Apply only the tension required to unseat or seat the cables during removal and insertion. Handle cables by the connector whenever possible. In all cases, avoid bending, twisting, or tearing cables. Be sure that cables are routed in such a way that they cannot be caught or snagged by parts being removed or replaced. Handle flex cables with extreme care; these cables tear easily.

Drive handling

 **CAUTION:** Drives are fragile components that must be handled with care. To prevent damage to the tablet, damage to a drive, or loss of information, observe these precautions:

Before removing or inserting a drive, shut down the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.

Before handling a drive, be sure that you are discharged of static electricity. While handling a drive, avoid touching the connector.

Before removing a diskette drive or optical drive, be sure that a diskette or disc is not in the drive and be sure that the optical drive tray is closed.

Handle drives on surfaces covered with at least one inch of shock-proof foam.

Avoid dropping drives from any height onto any surface.

After removing a drive, place it in a static-proof bag.

Avoid exposing a drive to products that have magnetic fields, such as monitors or speakers.

Avoid exposing a drive to temperature extremes or liquids.

If a drive must be mailed, place the drive in a bubble pack mailer or other suitable form of protective packaging and label the package "FRAGILE."

Grounding guidelines

Electrostatic discharge damage

Electronic components are sensitive to electrostatic discharge (ESD). Circuitry design and structure determine the degree of sensitivity. Networks built into many integrated circuits provide some protection, but in many cases, ESD contains enough power to alter device parameters or melt silicon junctions.

A discharge of static electricity from a finger or other conductor can destroy static-sensitive devices or microcircuitry. Even if the spark is neither felt nor heard, damage may have occurred.

An electronic device exposed to ESD may not be affected at all and can work perfectly throughout a normal cycle. Or the device may function normally for a while, then degrade in the internal layers, reducing its life expectancy.

⚠ CAUTION: To prevent damage to the tablet when you are removing or installing internal components, observe these precautions:

Keep components in their electrostatic-safe containers until you are ready to install them.

Before touching an electronic component, discharge static electricity by using the guidelines described in this section.

Avoid touching pins, leads, and circuitry. Handle electronic components as little as possible.

If you remove a component, place it in an electrostatic-safe container.

The following table shows how humidity affects the electrostatic voltage levels generated by different activities.

⚠ CAUTION: A product can be degraded by as little as 700 V.

Typical electrostatic voltage levels			
Event	Relative humidity		
	10%	40%	55%
Walking across carpet	35,000 V	15,000 V	7,500 V
Walking across vinyl floor	12,000 V	5,000 V	3,000 V
Motions of a bench worker	6,000 V	800 V	400 V
Removing DIPS from a plastic tube	2,000 V	700 V	400 V
Removing DIPS from a vinyl tray	11,500 V	4,000 V	2,000 V
Removing DIPS from Styrofoam	14,500 V	5,000 V	3,500 V
Removing bubble pack from PCB	26,500 V	20,000 V	7,000 V
Packing PCBs in a foam-lined box	21,000 V	11,000 V	5,000 V

Packaging and transporting guidelines

Follow these grounding guidelines when packaging and transporting equipment:

- To avoid hand contact, transport products in static-safe tubes, bags, or boxes.
- Protect ESD-sensitive parts and assemblies with conductive or approved containers or packaging.
- Keep ESD-sensitive parts in their containers until the parts arrive at static-free workstations.
- Place items on a grounded surface before removing items from their containers.
- Always be properly grounded when touching a component or assembly.
- Store reusable ESD-sensitive parts from assemblies in protective packaging or non-conductive foam.
- Use transporters and conveyors made of antistatic belts and roller bushings. Be sure that mechanized equipment used for moving materials is wired to ground and that proper materials are selected to avoid static charging. When grounding is not possible, use an ionizer to dissipate electric charges.

Workstation guidelines

Follow these grounding workstation guidelines:

- Cover the workstation with approved static-shielding material.
- Use a wrist strap connected to a properly grounded work surface and use properly grounded tools and equipment.
- Use conductive field service tools, such as cutters, screw drivers, and vacuums.
- When fixtures must directly contact dissipative surfaces, use fixtures made only of static-safe materials.
- Keep the work area free of non-conductive materials, such as ordinary plastic assembly aids and Styrofoam.
- Handle ESD-sensitive components, parts, and assemblies by the case or PCM laminate. Handle these items only at static-free workstations.
- Avoid contact with pins, leads, or circuitry.
- Turn off power and input signals before inserting or removing connectors or test equipment.

Equipment guidelines

Grounding equipment must include either a wrist strap or a foot strap at a grounded workstation.

- When seated, wear a wrist strap connected to a grounded system. Wrist straps are flexible straps with a minimum of one megohm $\pm 10\%$ resistance in the ground cords. To provide proper ground, wear a strap snugly against the skin at all times. On grounded mats with banana-plug connectors, use alligator clips to connect a wrist strap.
- When standing, use foot straps and a grounded floor mat. Foot straps (heel, toe, or boot straps) can be used at standing workstations and are compatible with most types of shoes or boots. On conductive floors or dissipative floor mats, use foot straps on both feet with a minimum of one megohm resistance between the operator and ground. To be effective, the conductive must be worn in contact with the skin.

The following grounding equipment is recommended to prevent electrostatic damage:

- Antistatic tape
- Antistatic smocks, aprons, and sleeve protectors
- Conductive bins and other assembly or soldering aids
- Non-conductive foam
- Conductive countertop workstations with ground cords of one megohm resistance
- Static-dissipative tables or floor mats with hard ties to the ground
- Field service kits
- Static awareness labels
- Material-handling packages
- Non-conductive plastic bags, tubes, or boxes
- Metal tote boxes
- Electrostatic voltage levels and protective materials

The following table lists the shielding protection provided by antistatic bags and floor mats.

Material	Use	Voltage protection level
Antistatic plastics	Bags	1,500 V
Carbon-loaded plastic	Floor mats	7,500 V
Metallized laminate	Floor mats	5,000 V

5 Removal and replacement procedures

 **CAUTION:** Tablet components described in this chapter should only be accessed by an authorized service provider. Accessing these components can damage the tablet or void the warranty.

 **NOTE:** HP continually improves and changes product parts. For complete and current information on supported parts for the tablet/keyboard, go to <http://partsurfer.hp.com>, select the country or region, and then follow the on-screen instructions.

There are as many as 11 screws that must be removed, replaced, and/or loosened when servicing the tablet. Make special note of each screw size and location during removal and replacement.

Top and bottom covers

Description	Spare part number
Top cover	767962-001
Bottom cover	767963-001

Before disassembling the tablet, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.

Remove the top and bottom covers:

 **CAUTION:** Before positioning the tablet with display panel facing down, make sure the work surface is clear of tools, screws, and any other foreign objects. Failure to follow this caution can result in damage to the display panel.

1. Turn the tablet upside down with the top edge toward you.
2. Release the outside edges of the top and bottom covers **(1)** from the display panel assembly and swing them up and to the inside.

3. Remove the top and bottom covers **(2)**.



Reverse this procedure to install the top and bottom covers.

Back cover

Description	Spare part number
Back cover with battery (1-cell, 5000-mAh, Li-ion, USB-charging, includes cable and power/volume board actuator)	767953-001
Display panel assembly (7.0-in, FHD, LED, TouchScreen, includes front cover)	767957-001

Before removing the back cover, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the top and bottom covers (see [Top and bottom covers on page 15](#)).

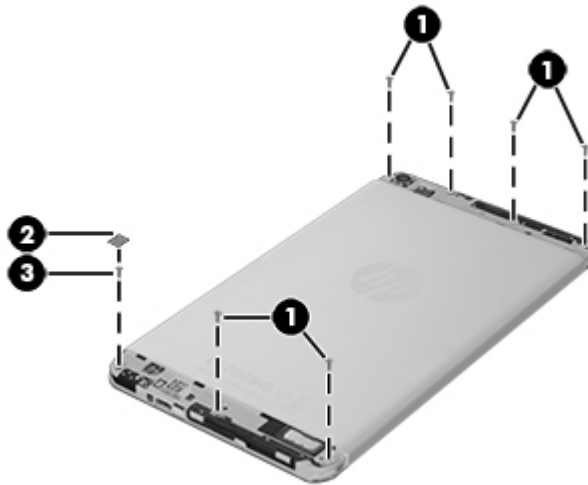
Remove the back cover:

⚠ CAUTION: Before positioning the tablet with display panel facing down, make sure the work surface is clear of tools, screws, and any other foreign objects. Failure to follow this caution can result in damage to the display panel.

1. Remove the six Phillips PM1.4×3.0 screws **(1)** that secure the back cover to the display panel assembly.

📝 NOTE: The following screw should have a warranty tag **(2)** on it. This tag should not have any signs of tampering on it. When repairs have been completed on the tablet, this warranty tag should be replaced.

2. Remove the Phillips PM1.4×4.2 screw **(3)** that secures the back cover to the display panel assembly.

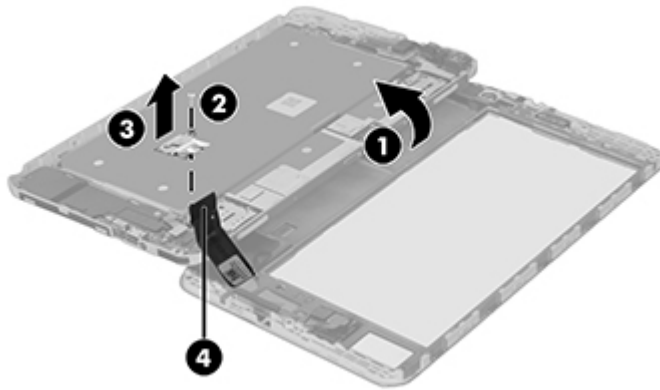


⚠ CAUTION: Do not completely separate the back cover from the display panel assembly in the next step. The display panel ribbon cable is connected between the display panel assembly and the system board and can be damaged if too much separation is achieved.

3. Separate the bottom edge of the back cover from the display panel assembly and swing it **(1)** up and away from the display panel assembly.
4. Remove the Phillips PM1.4×2.5 screw **(2)** that secures the battery cable bracket to the display panel assembly.
5. Remove the battery cable bracket **(3)**.

The battery cable bracket is available using spare part number 776000-001.

6. Disconnect the display panel cable (4) from the system board.



7. Remove the back cover.

 **NOTE:** If the power/volume board actuator should become displaced during the removal of the back cover, install it into the openings in the back cover as indicated in the following illustration. The power/volume board actuator is included in the back cover spare part kit.



Reverse this procedure to install the back cover.

Receiver

Description	Spare part number
Receiver (includes double-sided adhesive)	767964-001

Before removing the receiver, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the top and bottom covers (see [Top and bottom covers on page 15](#)).
5. Remove the back cover (see [Back cover on page 16](#)).

Remove the receiver:

- ▲ Detach the receiver from the display panel assembly. (The receiver is attached to the display panel assembly with double-sided adhesive.)



Reverse this procedure to install the receiver.

Battery

Description	Spare part number
1-cell, 5000-mAh, Li-ion, USB-charging battery (includes cable)	767954-001

Before removing the battery, follow these steps:

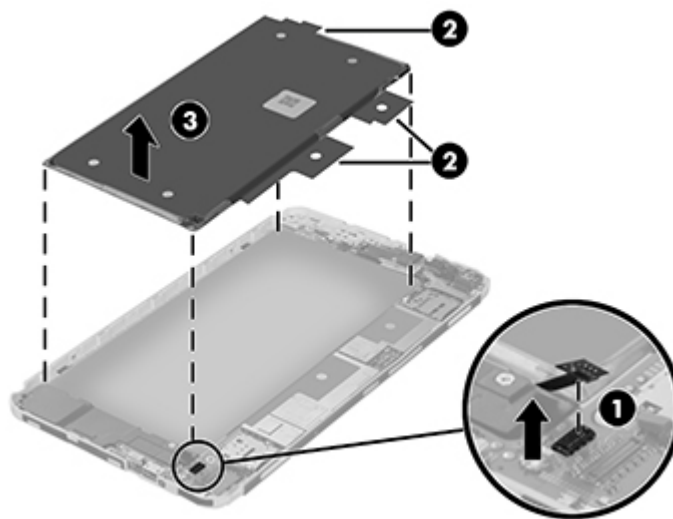
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the top and bottom covers (see [Top and bottom covers on page 15](#)).
5. Remove the back cover (see [Back cover on page 16](#)).

⚠ WARNING! To reduce potential safety issues, use only the battery provided with the tablet, a replacement battery provided by HP, or a compatible battery purchased from HP.

⚠ CAUTION: Removing a battery that is the sole power source for the tablet can cause loss of information. To prevent loss of information, save your work or shut down the tablet through the operating system before removing the battery.

Remove the battery:

1. Disconnect the battery cable **(1)** from the system board.
2. Detach the three sections of grounding tape **(2)** that secure the battery to the back cover.
3. Remove the battery **(3)**.



Reverse this procedure to install the battery.

RF cable

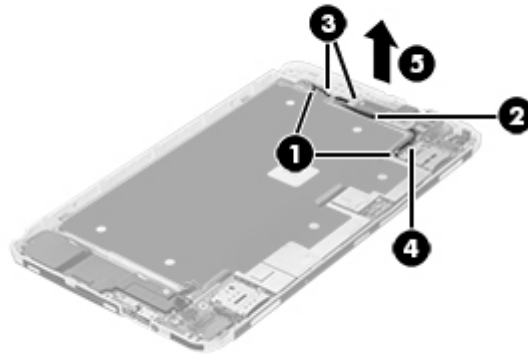
Description	Spare part number
RF cable	776002-001

Before removing the RF cable, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the top and bottom covers (see [Top and bottom covers on page 15](#)).
5. Remove the back cover (see [Back cover on page 16](#)).
6. Disconnect the battery cable from the system board (see [Battery on page 20](#)).

Remove the RF cable:

1. Disconnect the RF cable from the terminals **(1)** on the RF receiver and the system board.
2. Release the tape **(2)** that secures the RF cable.
3. Release the RF cable from the two plastic clips **(3)** built into the back cover.
4. Release the RF cable from the metal clip **(4)** built into the system board.
5. Remove the RF cable **(5)**.



Reverse this procedure to install the RF cable.

Webcam cable bracket

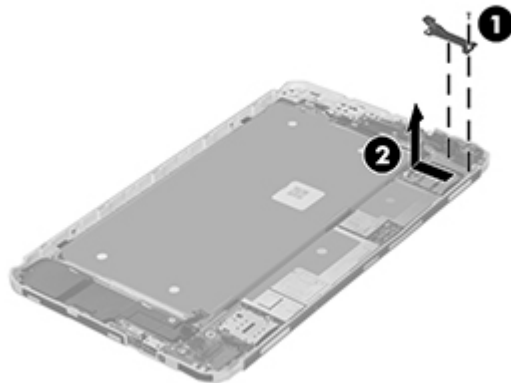
Description	Spare part number
Webcam cable bracket	775999-001

Before removing the webcam cable bracket, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the top and bottom covers (see [Top and bottom covers on page 15](#)).
5. Remove the back cover (see [Back cover on page 16](#)).
6. Disconnect the battery cable from the system board (see [Battery on page 20](#)).

Remove the webcam cable bracket:

1. Remove the Phillips PM1.4×2.5 screw **(1)** that secures the webcam cable bracket to the back cover.
2. Slide the webcam cable bracket **(2)** away from the retaining tab, and then remove it.



Reverse this procedure to install the webcam cable bracket.

I/O board

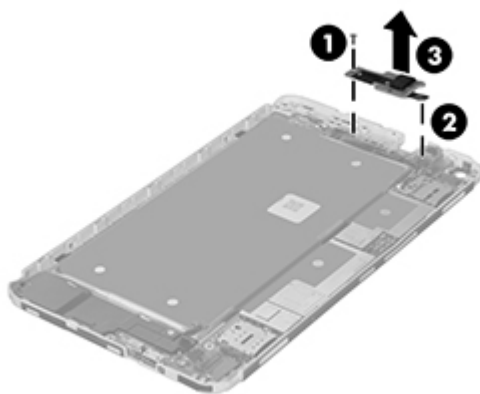
Description	Spare part number
I/O board (includes audio jack and cable)	767956-001

Before removing the I/O board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the top and bottom covers (see [Top and bottom covers on page 15](#)).
5. Remove the back cover (see [Back cover on page 16](#)).
6. Disconnect the battery cable from the system board (see [Battery on page 20](#)).
7. Remove the webcam cable bracket (see [Webcam cable bracket on page 22](#)).

Remove the I/O board:

1. Remove the Phillips PM1.4×2.5 screw **(1)** that secures the I/O board to the back cover.
2. Disconnect the I/O board cable **(2)** from the system board.
3. Remove the I/O board **(3)**.



Reverse this procedure to install the I/O board.

Front-facing webcam

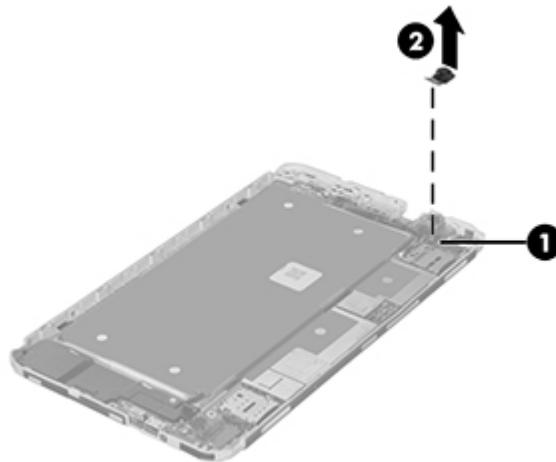
Description	Spare part number
5.0-MP front-facing webcam (includes cable and double-sided adhesive)	767960-001

Before removing the front-facing webcam, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the top and bottom covers (see [Top and bottom covers on page 15](#)).
5. Remove the back cover (see [Back cover on page 16](#)).
6. Disconnect the battery cable from the system board (see [Battery on page 20](#)).
7. Remove the webcam cable bracket (see [Webcam cable bracket on page 22](#)).

Remove the front-facing webcam:

1. Disconnect the front-facing webcam cable **(1)** from the system board.
2. Detach the front-facing webcam **(2)** from the back cover. (The front-facing webcam is attached to the back cover with double-sided adhesive.)



3. Remove the front-facing webcam and cable.

Reverse this procedure to install the front-facing webcam.

Rear-facing webcam

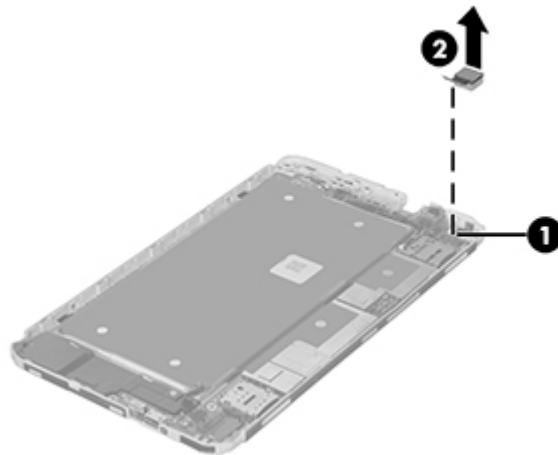
Description	Spare part number
13.0-MP rear-facing webcam (includes cable)	767961-001

Before removing the rear-facing webcam, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the top and bottom covers (see [Top and bottom covers on page 15](#)).
5. Remove the back cover (see [Back cover on page 16](#)).
6. Disconnect the battery cable from the system board (see [Battery on page 20](#)).
7. Remove the webcam cable bracket (see [Webcam cable bracket on page 22](#)).

Remove the rear-facing webcam:

1. Disconnect the rear-facing webcam cable **(1)** from the system board.
2. Remove the rear-facing webcam **(2)** and cable.



Reverse this procedure to install the rear-facing webcam.

Speaker

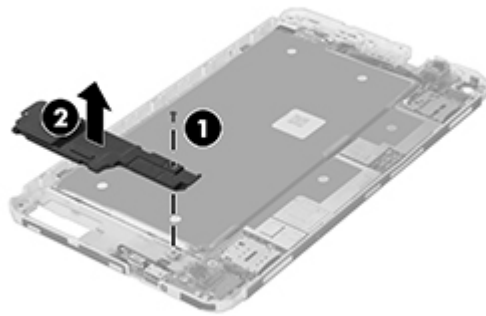
Description	Spare part number
Speaker	767958-001

Before removing the speaker, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the top and bottom covers (see [Top and bottom covers on page 15](#)).
5. Remove the back cover (see [Back cover on page 16](#)).
6. Disconnect the battery cable from the system board (see [Battery on page 20](#)).
7. Remove the webcam cable bracket (see [Webcam cable bracket on page 22](#)).

Remove the speaker:

1. Remove the Phillips PM1.4×2.5 screw **(1)** that secures the speaker to the back cover.
2. Remove the speaker **(2)**.



Reverse this procedure to install the speaker.

System board

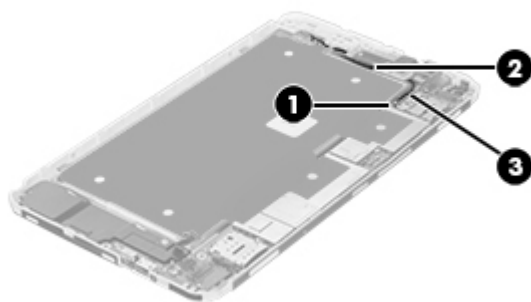
Description	Spare part number
System board equipped with a Balong V9R1 Cortex-A9 quad core 1.60-GHz processor, 2.0-GB of system memory, 16-GB eMMC system storage, and a graphics subsystem with UMA memory	767959-001

Before removing the system board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the top and bottom covers (see [Top and bottom covers on page 15](#)).
5. Remove the back cover (see [Back cover on page 16](#)).
6. Disconnect the battery cable from the system board (see [Battery on page 20](#)).
7. Remove the webcam cable bracket (see [Webcam cable bracket on page 22](#)).
8. Remove the speaker (see [Speaker on page 26](#)).

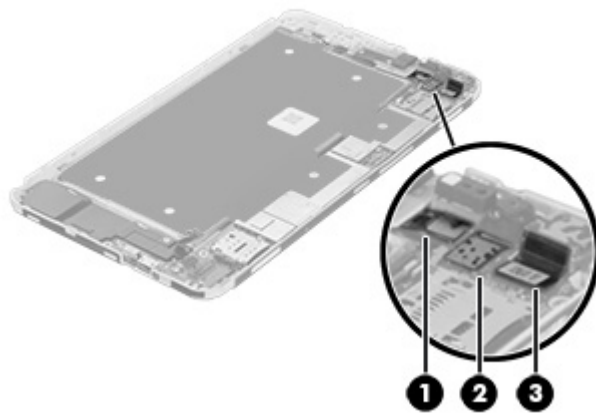
Remove the system board:

1. Disconnect the RF cable from the terminal **(1)** on the system board.
2. Release the tape **(2)** that secures the RF cable.
3. Release the RF cable from the metal clip **(3)** built into the system board.

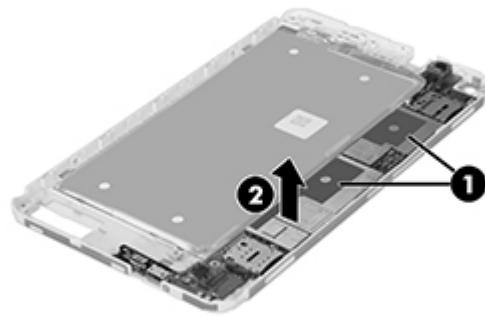


4. Disconnect the I/O board cable **(1)** from the system board.
5. Disconnect the front-facing webcam cable **(2)** from the system board.

6. Disconnect the rear-facing webcam cable **(3)** from the system board.



7. Detach the two sections of grounding tape **(1)** that secure the system board to the back cover.
8. Remove the system board **(2)**.



Reverse this procedure to install the system board.

6 Backing up and recovering data

Updating apps, widgets, and the operating system

HP recommends that all apps, widgets, and the operating system be updated on a regular basis to the latest versions. Updates can resolve issues and bring new features and options to the tablet. Technology is always changing, and updating apps, widgets, and the operating system allows the tablet to run the latest technology available. For example, older apps and widgets might not work well with the most recent operating system.

Go to the Google Play store to download the latest versions of HP and third-party apps and widgets. The operating system will download system updates automatically and provide notification when it is ready to install these updates. To update the operating system manually, go to <http://www.hp.com/support>.

Back up and reset

To select preferences for backing up and restoring data in case of loss:

1. Touch .
2. Under **PRIVACY & SECURITY**, touch **Back up & reset**.
3. Under **BACKUP & RESTORE**, select one or more of the following:
 - **Back up my data**—Select the check box to enable backing up app data, Wi-Fi passwords, and other settings to Google servers, or clear the check box to disable this feature.
 - **Backup account**—Select a Google account for backing up data.
 - **Automatic restore**—Select the check box to enable backed up settings and data to be restored when an app is reinstalled, or clear the check box to disable this feature.

Factory data reset

 **CAUTION:** If this option is selected, all settings are reset to factory values, and all personal data on the device is deleted.

To reset all settings and delete all data on the device:

1. Touch .
2. Under **PRIVACY & SECURITY**, touch **Back up & reset**.
3. Under **PERSONAL DATA**, select **Factory data reset**, and then follow the on-screen instructions.

7 Specifications

	Metric	U.S.
Dimensions (Portrait orientation)		
Height	18.35 cm	7.22 in
Width	10.39 cm	4.09 in
Depth	0.72 cm	0.28 in
Weight	250.0 g	0.55 lb
The voice tablet operates on DC power, which can be supplied by an AC or a DC power source. The AC power source must be rated at 100-240 V, 50/60 Hz, 0.3-1.0 A.		
NOTE: The voice tablet can operate on DC power using an industry-standard micro-B USB cable. The HP adapter included with your voice tablet is recommended for charging the voice tablet.		
Temperature		
Operating	5°C to 35°C	41°F to 95°F
Nonoperating	-20°C to 60°C	-4°F to 140°F
Relative humidity (non-condensing)		
Operating	10% to 90%	
Nonoperating	5% to 95%	
Maximum altitude (unpressurized)		
Operating	-15 m to 3,048 m	-50 ft to 10,000 ft
Nonoperating	-15 m to 12,192 m	-50 ft to 40,000 ft
NOTE: Applicable product safety standards specify thermal limits for plastic surfaces. The device operates well within this range of temperatures.		

8 Power cord set requirements

The wide-range input feature of the tablet permits it to operate from any line voltage from 100 to 120 volts AC, or from 220 to 240 volts AC.

The 3-conductor power cord set included with the tablet meets the requirements for use in the country or region where the equipment is purchased.

Power cord sets for use in other countries and regions must meet the requirements of the country or region where the tablet is used.

Requirements for all countries

The following requirements are applicable to all countries and regions:

- The length of the power cord set must be at least 1.0 m (3.3 ft) and no more than 2.0 m (6.5 ft).
- All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country or region where the power cord set will be used.
- The power cord sets must have a minimum current capacity of 10 amps and a nominal voltage rating of 125 or 250 V AC, as required by the power system of each country or region.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C13 connector for mating with the appliance inlet on the back of the tablet.

Requirements for specific countries and regions

Country/region	Accredited agency	Applicable note number
Australia	EANSW	1
Austria	OVE	1
Belgium	CEBC	1
Canada	CSA	2
Denmark	DEMKO	1
Finland	FIMKO	1
France	UTE	1

Country/region	Accredited agency	Applicable note number
Germany	VDE	1
Italy	IMQ	1
Japan	METI	3
The Netherlands	KEMA	1
Norway	NEMKO	1
The People's Republic of China	COC	5
South Korea	EK	4
Sweden	CEMKO	1
Switzerland	SEV	1
Taiwan	BSMI	4
The United Kingdom	BSI	1
The United States	UL	2

1. The flexible cord must be Type HO5VV-F, 3-conductor, 1.0-mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.
2. The flexible cord must be Type SPT-3 or equivalent, No. 18 AWG, 3-conductor. The wall plug must be a two-pole grounding type with a NEMA 5-15P (15 A, 125 V) or NEMA 6-15P (15 A, 250 V) configuration.
3. The appliance coupler, flexible cord, and wall plug must bear a "T" mark and registration number in accordance with the Japanese Dentori Law. The flexible cord must be Type VCT or VCTF, 3-conductor, 1.00-mm² conductor size. The wall plug must be a two-pole grounding type with a Japanese Industrial Standard C8303 (7 A, 125 V) configuration.
4. The flexible cord must be Type RVV, 3-conductor, 0.75-mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.
5. The flexible cord must be Type VCTF, 3-conductor, 0.75-mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.

9 Recycling

When a non-rechargeable or rechargeable battery has reached the end of its useful life, do not dispose of the battery in general household waste. Follow the local laws and regulations in your area for battery disposal.

HP encourages customers to recycle used electronic hardware, HP original print cartridges, and rechargeable batteries. For more information about recycling programs, see the HP Web site at <http://www.hp.com/recycle>.

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